

⑫

EUROPEAN PATENT APPLICATION

⑪ Application number: **88306260.6**

⑤ Int. Cl.4: **F 25 B 45/00**

⑫ Date of filing: **08.07.88**

⑩ Priority: **04.11.87 US 117098**

⑬ Date of publication of application:
10.05.89 Bulletin 89/19

⑭ Designated Contracting States:
BE CH DE ES FR GB IT LI SE

⑮ Date of deferred publication of search report:
15.11.89 Bulletin 89/46

⑦ Applicant: **Kent-Moore Corporation**
28635 Mound Road
Warren Michigan 48092-3499 (US)

⑧ Inventor: **Manz, Kenneth W.**
Route 1 Box 506
Paulding Ohio 45879 (US)

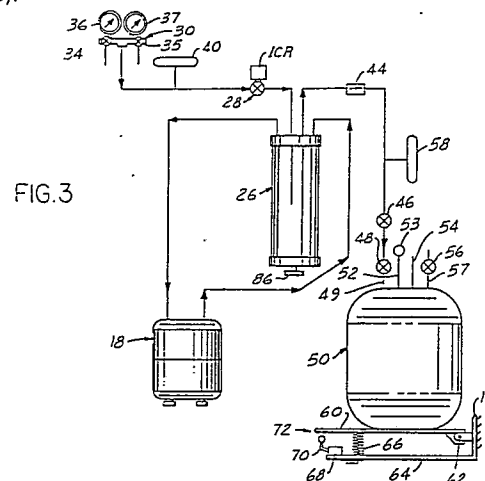
Shirley, Roger D.
408 N. Liberty
W. Unity Ohio 43570 (US)

⑨ Representative: **Singleton, Jeffrey et al**
ERIC POTTER & CLARKSON 27 South Street
Reading Berkshire, RG1 4QU (GB)

⑤④ Refrigerant recovery and purification system.

⑤⑦ A refrigerant recovery system (10) which includes a compressor (18) having an input coupled through an evaporator and through a solenoid valve to the refrigeration system from which refrigerant is to be withdrawn, and an output coupled through a condenser to a refrigerant storage container (50). The evaporator and condenser are contained within a closed cylindrical canister (26) for heat exchange and oil separation, the canister (26) having an oil drain valve (86) in the bottom. The refrigerant storage container (50) is carried by a scale (72) having a limit switch (68) coupled to control electronics (74) to prevent or terminate further refrigerant recovery when the container (50) is full. The entire system (10), including the control electronics (74), is mounted on a two-wheel hand truck (12) to facilitate transport to a job site such as a building air conditioning or heat pump system. Apparatus for purifying recovered refrigerant (140) includes a replaceable core filter/dryer (148), and a liquid pump (142) for circulating refrigerant from the liquid port (57) of the storage container through the core (148) and then to the container vapor port (49). A differential pressure gauge (170) is connected across the filter/dryer (148) to indicate need for core replacement. A moisture indicator (104) displays water concentration in the refrigerant. The purification apparatus (140) may be either separate from or combined with the recovery system

(10).





DOCUMENTS CONSIDERED TO BE RELEVANT			EP 88306260.6
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
A	<u>US - A - 4 364 236</u> (LOWER) * Totality * --	1,7,8, 10,13, 17,22, 23	F 25 B 45/00 F 25 B 43/00
D,A	<u>US - A - 4 261 178</u> (CAIN) * Fig. 1, belonging text * --	1,8, 10-13	
A	<u>US - A - 3 232 070</u> (SPARANO) * Totality * --	1,8, 10,16, 17,23, 26,27, 29	
A	<u>DD - A - 209 511</u> (HAENTZSCHEL) * Totality * --	1,10, 23,27	
A	<u>US - A - 4 285 206</u> (KOSER) * Fig. 1, belonging text * --	1,8, 10,13, 17,23, 24	TECHNICAL FIELDS SEARCHED (Int. Cl.4)
A	<u>WO - A1 - 81/00 756</u> (LANGGARD) * Totality * -----	1,8, 10,13	F 25 B
The present search report has been drawn up for all claims			
Place of search VIENNA		Date of completion of the search 30-08-1989	Examiner WITTMANN
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	